Remarks/Arguments:

Claims 1-14 are pending in this application. All pending claims are presently rejected.

Claims 3, 4, 6, and 8-14 are rejected under 35 U.S.C. § 112.

Regarding claims 3, 4, 8, and 11-13, these claims have been appropriately amended.

Claim 3 is rejected on the grounds that there is insufficient antecedent basis for the "the first device plug-in." This limitation of claim 3 is amended to recite "the first device plugged in the first network," in accordance with the Examiner's suggestion.

Claim 6 is rejected on the grounds that there is insufficient antecedent basis for "the first device plugged-in," "the second device plugged-in," and "the first device information." The limitations reciting "the first device plugged-in" and "the second device plugged-in" have been amended to recite "the first device plugged in the first network" and "the second device plugged in the second network," respectively, in accordance with the Examiner's suggestion. With respect to "the first device information," however, Applicants contend that no amendment is necessary. The Examiner states that there is no mention of a first device in the claim itself and in claim 1. The Examiner is directed to claim 1, element (c), for the recitation of the first device. Additionally, claim 6 recites that "wherein said virtual-device-controller detects a plug in of the first device, searches the registry for information about the first device plugged-in, and acquires the information," (i.e., the first device information). Thus, it is Applicants' position that there is sufficient antecedent basis for "the first device information".

Claims 9, 12, and 14 are rejected for lack of sufficient antecedent basis stating there is insufficient antecedent basis for "the first device" and "the second device." The Office Action suggests changing each of these limitations to either "the first device plugged in the first network" or "the second device plugged in the second network" as appropriate. The addition of "plugged in the first network" and "plugged in the second network" merely provides positional information for the first device and the second device, respectively. In addition, there is only one first device and one second device. Thus, it is clear that when referring to a first device or a first device plugged in a first network we are referring to the same device. Likewise, when referring to the second

device or the second device plugged in the second network we are referring to the second device. Thus, Applicants contend that it is unnecessary to recite that the first device is the first device plugged in the first network and the second device is the second device plugged in the second network when referring to the first device and the second device.

Claim 10 is rejected for insufficient antecedent basis for the phrase "the first device," "the second device" and "detecting the first device plugged in." Applicants have amended the limitation detecting "the first device plugged-in" to recite "the first device plugged in the first network." Regarding "the first device" and "the second device," however, Applicants contend that no amendment is necessary for the same reasons set forth above regarding claims 9, 12, and 14.

The Office Action rejects claims 1, 7, 8, 11, and 14 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,496,862 to Akatsu et al. (hereinafter "Akatsu"). It is respectfully submitted that the claims are patentable over the art of record for the reasons set forth below.

The present invention is a method and apparatus for connecting through a gateway a device on a first network such as a HAV, network with a device on a second network such as an IP network. Virtual devices are set up in the gateway for enabling communication between one or more devices in the first network and one or more devices on the second network. The virtual devices establish connections and convert executable commands issued by devices on one network into executable commands and that devices on the other network can execute. For example, the virtual devices can convert an executable command such as PLAY that would cause a device on a first network to play when executed into an executable command that causes a device or the second network to play when executed.

Thus, devices on either network can issue executable command that are executable by devices on either network without any knowledge of the protocol used by the other network.

Akatsu provides a method for remote monitoring and control of devices in a network. Remote monitoring and control is provided through the use of a gateway that maintains an address mapping table for enabling connection between the devices across

networks. The gateway apparatus converts data and signals between the networks to enable communication.

Applicants' invention, as recited by claim 1, includes a feature which is neither disclosed nor suggested by the art of record, namely,

> (d) a virtual device functioning as a gateway for the first device plugged in the first network and a second device plugged in the second network to communicate with each other, **said virtual device converting commands issued by each of the first and second devices into commands the second and first devices, respectively, comprehend so that the commands are executable by the first and second devices**;

This means that a command to perform a specific action, e.g., play, issued by the first device can be executed on the first device and that this command is converted such that it is executable on the second device to perform the same action, e.g., play. This feature is found in the originally filed application at page 8, lines 9 and 10 and in claim 14. No new matter has been added.

In Akatsu, the gateway converts data and signals from one network to another. See column 10, lines 16-19 and 39-41. Akatsu, however, does not disclose, teach or suggest the conversion of commands issued by a device on one network for causing a certain action such that the command can be executed by a device on a second network to cause the same action. In Akatsu, the first device would not issue a command operable on the first device to cause a similar action in the second device. Rather, the first device in Akatsu must issue a command that it believes will produce the desired action in the second device. Accordingly, in Akatsu, the first device must have knowledge of the protocol used by the second device. Thus, Akatsu does not disclose, teach or suggest converting specific commands that are executable on a first network device such that they are executable on a second network device, and vice versa. Further, none of the art of record disclose, teach or suggest the conversion of commands for execution on different networks as indicated in claim 1.

It is <u>because</u> Applicants include the feature of converting commands issued by each of the first and second devices into commands executable by the second and first devices that the following advantage is achieved. Commands to perform specific actions such as play issued by a first device in a first network (such as a videotape recorder

within a HAVi network) can be executed by the first device and converted to perform the same action in a device in another network (such as an internet protocol videotape recorder in an IP network) without devices in one network being compatible or having knowledge of the protocol used by devices in the other network.

Accordingly, for the reasons set forth above, amended claim 1 is patentable over the art of record. Support for the amendment to claim 1 is found in claim 14. The amendment to claim 1 incorporates the language which appeared in original claim 14. Thus, the proposed amendment does not require an additional search and should not raise a new matter issue.

Independent claim 8 includes features similar to those discussed above with respect to claim 1. Accordingly, claim 8 is also patentable over the art of record for the reasons set forth above that claim 1 is patentable.

Claims 7, 11, and 14 include all the features of either claims 1 or 8 from which they depend, either directly or indirectly. Thus, claims 7, 11, and 14 are also patentable over the art of record for at least the reasons set forth above.

In addition, claim 7 includes additional limitations not found in the art of record. Specifically, the art of record does not disclose, teach, or suggest a "command converter" or a "command-correspondence-controller." The office action refers to several passages within Akatsu to teach these limitations. Each of there passages, however, refers to the conversion of signals and data, rather than the conversion of specific commands such as play that the are executable by devices on different networks. Accordingly, since Akatsu does not refer to converting commands such that they are executable by devices on different networks, Akatsu does not disclose, teach, or suggest a command converter or a command-correspondence-controller as set forth in claim 7. Thus, claim 7 is patentable for this additional reason.

Claims 2-6, 9, 10, 12, and 13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Akatsu in view of an article by Peter M. Corcoran entitled "Mapping Home-Network Appliances TCP/IP Sockets Using a Three Tiered Gateway Architecture" (hereinafter "Corcoran"). Claims 2-6, 9, 10, 12, and 13 depend from either claim 1 or 8 and, thus, contain all of the limitations thereof. Claims 1 and 8 include a patentable feature, namely a virtual device converting commands issued by each of first and second

devices into commands the second and first devices can execute. As discussed above, Akatsu does not teach this feature. Further, none of the art of record, including Corcoran disclose, teach, or suggest this feature. Thus, Akatsu in view of Corcoran, does not disclose, teach, or suggest this feature. Accordingly, claims 2-6, 9, 10, 12, and 13 are also patentable over the art of record for the reasons set forth above with respect to claim 1.

In view of the amendments and remarks set forth above, the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,

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